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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/546,962	04/11/2000	Peter Merchant	TELNP202USA	4166

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EXAMINER

LEE, SEUNG H

ART UNIT PAPER NUMBER

2876

DATE MAILED: 08/21/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/546,962

Applicant(s)

MERCHANT, PETER

Examiner

Seung H Lee

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 June 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

1. Receipt is acknowledged of the response filed on 5 June 2002, which has been entered in the file.

***Continuing Domestic Data***

2. Acknowledgement is made that this application is a continuation of Application Serial No. 09/447,847 filed 23 November 1999.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Brobst et al (US 6,053,409) (hereinafter referred to as 'Brobst').

Re claims 1, 3-6, 12, 15, 16, 21, 23; A system for scanning a barcode comprising a light source (122), a piezoelectric material reflector (124) having an arcuate reflective surface with a variable shape generally radial, a shape controlling system (260) for controlling the shape of reflector according to the voltage or power source, a beam expander (129) wherein the reflector reflecting a light beam from the light source onto the beam expander, the beam expander reflecting the light beam onto the target, and the shape controlling system varying the shape of the reflector (see Fig. 5-8; col. 5, lines 5- 60), a housing having horizontal top and bottom sides, vertical left and right sides, and an aperture in one of the sides (see Fig. 11; col. 6, line 44 – col. 8, line 3).

Re claim 2: A photo sensor (132 and 154) generates an electrical representative of reflected light beam from the target (see Fig. 5, 5A; col. 4, lines 48-67).

Re claim 7-11, and 18-20, and 22: A expander has a cylindrical, a spherical, or a convex arcuate reflective surface (see col. 3, line 52- col. 4, line 36).

Re claims 13, and 14: A conversion and interface system receiving the electrical signal from the photo sensor and converting the electrical signal to a digital code (see col. 3, lines 29- 45).

Re claim 17: The reflector includes a piezoelectric material having a metal electrode layer (262) and a piezoceramic layer (264) which serves as a two electrode wherein the shape of reflector varies according to the voltage across the electrodes (see Fig. 6, 7; col. 5, lines 25-42).

**Response to Arguments**

5. Applicant's arguments filed 6 June 2002 have been fully considered but they are not persuasive.

In response to the applicant's argument that "*The oscillating mirror 129 of Brobst et al. does not provide for an expansion of a light ray, as does the beam expander of claims 1, 15, and 23*" (see page 6, line 12+), the Examiner respectfully disagrees with the applicant wherein the beam expander of the claimed invention is *reflecting* the light beam onto a target (e.g., "said beam expander reflecting...." (claim 1, line 7), "reflecting a second portion of said light beam...." (claim 15, line 7+), "expander means for reflecting...."(claim 23, line 4+)) rather than expanding the light ray. Accordingly, given its broadest reasonable interpretation, the teaching of Brobst meets the claimed limitations.

In response to the applicant's argument that "*Brobst et al. does not disclose a mirror being oriented so as to reflect a second portion of said light beam from a reflector through an aperture onto a target, whereby said light beam is expanded by the mirror*" (see page 6, line 22+), the Examiner respectfully disagrees with the applicant wherein Brobst clearly teaches the polygonal scan mirror (16, 80, 100, and 128 in Figs. 1, 3, 4, and 5) and the oscillating mirror (129 in Fig. 5A) to reflect the light beam from the light source onto the target.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure;

Tawara [US 6,234,396], Park et al [US 6,057,547], Williams [US 4,578,571], Drucker [US 4,818,886], Dvorkis et al [US 5,859,417], and Bard et al [US 5,521,367] disclose a optical barcode scanning system,

Danyluk et al [US 6,253,619] discloses a reflective piezoelectric element connected to two electrodes.


Any inquiry concerning this communication or earlier communication from the examiner should be directed to Seung H. Lee whose telephone number is (703) 308-5894. The examiner can normally be reached on Monday to Friday from 7:30 AM to 4:00 PM.

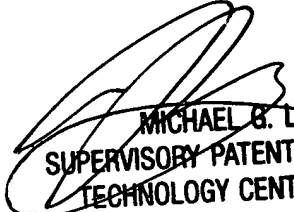
If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee, can be reached on (703) 305-3503. The fax-phone number for this group is (703) 308-5841 or (703) 308-7722.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [michael.lee@uspto.gov].

*All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.*

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

  
Seung H. Lee  
Art Unit 2876  
August 14, 2002

  
MICHAEL G. LEE  
SUPERVISORY PATENT EXAMINER  
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